



# COUNTRY FACT SHEET Indonesia





Pre (top) and post-disaster images of Indonesia-Banda Aceh. (UNEP/OCHA: February 2005).

U.S. Agency for International Development www.usaid.gov

Post-disaster IKONOS Image: December 29, 2005.

## **Tsunami Impacts**

Indonesia was the hardest hit country by the Indian Ocean tsunami in December 2004 with more than 160,000 people dead or missing. Due to its proximity to extensive earthquake faults, Indonesia is particularly vulnerable to seismic activity that generates tsunamis as seen again in the July 2006 tsunami that struck West Java, where more than 600 people were killed.



## **US IOTWS Program Activities in Indonesia**

Through a collaborative effort of the U.S. Agency for International Development and leading technical agencies of the U.S. Government, the US Indian Ocean Tsunami Warning System (IOTWS) Program is implementing a number of activities in the five countries most affected by the December 2004 tsunami disaster, including Indonesia. The goal of the program is to support international efforts of UNESCO's Intergovernmental Oceanographic Commission (IOC) to establish an operational end-to-end regional tsunami/multi-hazard warning system. Some selected activities include the following:

# Improving Tsunami and Earthquake Detection, Forecasting, and Warning

- Technical support to repair, upgrade, and install seismic and GPS instruments in partnership with Indonesia's meteorological and geophysical agency (BMG)
- Technical training in partnership with the IOC on seismology and tsunami detection and analysis
- Technical cooperation on deployment and operation of Deep Ocean Assessment and Reporting of Tsunami (DART) buoys
- Upgrades of sea level stations throughout the country
- Field training for scientists on identifying evidence of historic tsunamis.

# **Building Capacity for Disaster Management and Warning Communications**

- Capacity building to support warning center Concept of Operations (CONOPS) to ensure interoperability with the IOTWS
- Training for a national Tsunami Alert Rapid Notification System (TARNS), based on pilot activities in Thailand









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- Training on Incident Command Systems (ICS) based on pilot activities in Sri Lanka
- Support to BMG to develop information technology systems under a U.S.
  Trade and Development Agency (USTDA) grant agreement
- Demonstrations and pilot implementation of RANET (RAdio and interNET) to support satellite broadcast, satellite point-to-point, SMS (mobile phone text messaging), and/or community FM radio to provide warning communications to coastal areas.

# **Building Disaster Preparedness through Community Resilience**

- Implementation of a Coastal Community Resilience (CCR) initiative to mobilize local preparedness champions and promote standard guidelines and training tools region-wide (including Indonesia) for cities, villages, and the tourism industry.
- Establishment of a community-based disaster management forum of practitioners to help coordinate and leverage activities, share experiences, and discuss and adopt good practices across many sectors and locations.

## **Small Grants to Non-Governmental Organizations**

- Indonesian Society for Disaster Management (MPBI) to develop guidance materials on Indonesia's new national disaster management law and to conduct outreach seminars in five key provinces at high risk for coastal hazards
- Gadjah Mada University, working with the Ministry of Marine Affairs, to develop technical materials and conduct training for provincial and district-level managers on coastal hazards mitigation techniques
- Indonesian Institute for Disaster Preparedness (IIDP) for improving local preparedness through community-based disaster risk management and formulation of contingency plans for Nias and South Nias districts
- Indonesian Development of Education and Permaculture (IDEP) Foundation to carry out revision, expansion and multi-stakeholder endorsement of a community-based disaster management kit
- World Fish Center for rehabilitation of fisheries and aquaculture livelihoods in tsunami-affected coastal communities in Aceh Province.

#### Other Regional Efforts Benefiting Indonesia

Through the IOC framework, the US IOTWS Program is also supporting:

- Interim warnings to the Indian Ocean from the Pacific Tsunami Warning Center (PTWC) until the IOTWS is established
- Development of the overall conceptual design of the IOTWS
- Deployment of DART buoy stations
- Development and dissemination of tsunami propagation computer models
- Support for coastal inundation hazard and vulnerability modeling and mapping
- Establishment of an International Tsunami Training Institute (ITTI) through a US-Asia-UN partnership.

U.S. Contribution to the

Indian Ocean Tsunami Warning

System

For more information please visit www.us-iotws.gov.

#### About the US Indian Ocean Tsunami Warning System (IOTWS) Program

The US IOTWS Program is part of the international effort to develop tsunami warning system capabilities in the Indian Ocean following the December 2004 tsunami disaster. The US program adopts an "end-to-end" approach—addressing regional, national, and local aspects of a truly functional warning system—along with multiple other hazards that threaten communities in the region. In partnership with the international community, national governments, and other partners, the US program offers technology transfer, training, and information resources to strengthen the tsunami warning and preparedness capabilities of national and local stakeholders in the region. For more information please visit <a href="https://www.us-iotws.gov">www.us-iotws.gov</a>.

